



# Soil Strategic Partnership

## HIGHLIGHTS

Amidst the growing threat of climate change, the agricultural sector in Tanzania is facing unprecedented challenges, with unpredictable weather, pest outbreaks, and excessive rainfall significantly impacting crop yields. However, a promising solution lies in prioritizing soil health. Data reveals that soil quality is fundamental to agricultural success, and imbalances in soil pH levels, particularly increased acidity, can create a toxic environment for crops, leading to nutrient deficiencies and reduced yields. By investing in soil health technologies and practices, farmers can mitigate these risks, enhance crop resilience, and ensure the long-term sustainability and profitability of the agricultural sector.



Investing in soil health in Tanzania is a win-win strategy, boosting agricultural productivity, farmer incomes, and environmental sustainability while mitigating climate change risks. Around 14.3% (4.7 million hectares) of Tanzania's cropland is acidic, impacting agricultural productivity and the economy, with losses exceeding USD 470 million annually.

## OPPORTUNITIES

- **New Business Ventures:** Enterprises offering soil pH management products and services.
- **Standardized Training:** Create replicable training modules for sustainable soil management.
- **Digital Platforms:** Utilize digital tools for information dissemination and real-time advisory services.
- **Pilot Projects:** Establish demonstration farms to showcase soil health practices.
- **Partnerships:** Strengthen collaborations with stakeholders to share resources and expertise.
- **Financing Models:** Develop microloans and insurance tailored to smallholder farmers.
- **Policy Support:** Advocate for policies incentivizing sustainable soil management.
- **Monitoring:** Implement frameworks to track progress and assess impact.
- **Community Engagement:** Conduct educational campaigns to raise awareness.
- **Scalable Technology:** Promote soil testing kits and precision agriculture tools.
- **Replication:** Replicate successful practices in diverse regions with local adaptation.

## CHALLENGES

- **Resource Allocation:** Securing funding and personnel for large-scale implementation.
- **Infrastructure:** Overcoming poor infrastructure hindering transportation and market access.
- **Farmer Engagement:** Addressing resistance to new practices due to traditional methods.
- **Policy Barriers:** Navigating complex regulations that may hinder innovation.
- **Climate Variability:** Adapting to unpredictable climate impacts on soil health.
- **Knowledge Dissemination:** Ensuring effective communication and adoption of best practices.
- **Technological Adoption:** Promoting advanced tech among farmers with limited resources.
- **Market Access:** Ensuring consistent and fair market opportunities for farmers' increased yields.
- **Sustainability:** Balancing short-term gains with long-term sustainable practices.

## WHY?

The Partnership for Soil Health is a collaborative initiative to transform agricultural practices in Tanzania by combating soil degradation. Through partnerships with various stakeholders, the program promotes innovative soil management practices and technologies, enhancing soil fertility, boosting crop yields, and improving food security. By empowering smallholder farmers with the knowledge and tools to manage soil health, the initiative contributes to higher incomes, better livelihoods, and overall sustainable economic growth in the agricultural sector.

## TRANSFORMATION

For over ten years, the SAGCOT Soil Health Partnership has been a transformative force in Tanzanian agriculture, raising awareness and implementing sustainable soil management practices. In recent years collaborating with AGRA, Dodoma Cement, and BRITEN, the initiative extended its impact to an additional 150,000 farmers by focusing on soil acidity management. GAIA partners played a vital role in developing national guidelines for acid soil management in Tanzania, while TARI and SAGCOT conducted 43 on-farm trials and demonstrations, showcasing effective acid soil management practices. Additionally, over 50 government officials and researchers were trained in these techniques, enhancing their capacity to support farmers.

# SCALABILITY

Scalability is essential for ensuring the long-term success and widespread impact of the SAGCOT Soil Health Partnership. To achieve this, standardized training modules should be developed to cover all aspects of sustainable soil management, making them easily replicable and adaptable to different regions. Digital platforms and mobile applications can disseminate information, provide real-time advisory services, and connect farmers with experts, reaching a larger audience efficiently. Implementing pilot projects and establishing demonstration farms in diverse agro-ecological zones can serve as practical examples, encouraging wider adoption. Strengthening partnerships with local and international stakeholders can pool resources and share expertise, amplifying the reach of soil health initiatives. Developing scalable financing models tailored to smallholder farmers, such as microloans and insurance products, enables farmers to invest in necessary inputs and technologies.

# STAKEHOLDERS

The stakeholders in the SAGCOT Soil Health Partnership include SAGCOT Centre Ltd., AGRA, Dodoma Cement, BRITEN, TARI, the Bill and Melinda Gates Foundation, CIMMYT, local government authorities (LGAs), regional administrative secretariats (RAS), WWF, Yara, Syngenta, Balton, Fair Agro, the PAWAGA Farmers Association, INCOMET, and MUVI. These organizations collaborate to coordinate efforts, provide resources, implement soil management practices, support sustainable farming, and enhance the agricultural value chain in Tanzania.

# END-TO-END SOLUTION

The initiative coordinates efforts to ensure inclusive and sustainable investments, supplying resources and support for soil health initiatives, raising awareness about soil acidity management, and implementing trials and demonstrations. It also includes funding support, research and technological backing, and local implementation facilitation. Additionally, the partnership guides sustainable farming practices, supplies advanced agricultural inputs, provides specialized technology solutions, represents smallholder farmers, and enhances capacity building and financial literacy. This comprehensive approach effectively addresses every stage of the agricultural value chain, from input supply to market access, ensuring a holistic improvement in agricultural practices and outcomes.

## Inclusive and sustainable impact

The initiative ensures that smallholder farmers are integral to the agricultural value chain, providing them with access to vital resources, training, and market opportunities. By promoting sustainable farming practices and effective soil management, the partnership enhances soil fertility, increases crop yields, and supports environmental conservation. The collaboration involves diverse stakeholders, including government bodies, private sector companies, and research institutions, to create a resilient agricultural system that benefits all participants including women and youth.

# Next steps & Recommendations

- **Expand Training Programs:** Increase capacity-building efforts for farmers and stakeholders on sustainable soil management.
- **Enhance Market Access:** Improve infrastructure and partnerships to ensure farmers can sell their yields at fair prices.
- **Leverage Technology:** Integrate advanced technologies and precision farming techniques for optimal soil health.
- **Promote Policy Advocacy:** Advocate for supportive policies that incentivize sustainable soil management practices.
- **Facilitate Financial Inclusion:** Develop financial products tailored to smallholder farmers' needs for better investment in soil health.
- **Strengthen Partnerships:** Foster collaborations with diverse stakeholders to pool resources and share knowledge.
- **Monitor and Evaluate Impact:** Implement robust frameworks to track progress and refine strategies for continuous improvement.



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